ENERGY POLICY UPDATE

September 22, 2014

The Energy Policy Update Electronic Newsletter is published by the Arizona Governor's Office Of Energy Policy and is provided free of charge to the public. It contains verbatim excerpts from international, domestic energy, and environment-related publications that are reviewed by Community Outreach Personnel. For inquiries, call 602-771-1143 or toll free to 800-352-5499. To register to receive this newsletter electronically or to unsubscribe, email Gloria Castro.

UPCOMING WEBINARS

- High Performance Outdoor Lighting Accelerator Webinar
  Sponsor: Weatherization & Intergovernmental Programs
  Thursday, October 2, 2014
  11:00am-12:30pm (AZ Time)
  Click here to register.
- PACE Financing for Energy Efficiency Webinar
  Sponsor: Better Buildings Challenge
  Tuesday, October 7, 2014
  12:00pm-1:00pm (AZ Time)
  Click here to register.
- ENERGY STAR Webinars
- U.S. Dept. of Energy Tribal Renewable Energy Webinar Series for 2014

UPCOMING EVENTS 2014 – 2015

EPA Clean Power Plan Stakeholder Meeting
Sep. 24 Phoenix, AZ

World Energy Engineering Congress
Oct. 1-3 Washington, DC

Geothermal Energy Expo
Sep. 28-Oct. 1 Portland, OR

SRP 2015 Economic Forecast
Oct. 2 Phoenix, AZ

AWEA Offshore Windpower

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The Arizona Republic now has limited access. As such, links may or may not work.

ARIZONA-RELATED

ASU Design and Engineering Professor Receives Top National Solar Energy Award
[ASU News, Sept. 17] Arizona State University professor T. Agami Reddy has been awarded the 2014 Yellott Award by the Solar Energy Division of the American Society of Mechanical Engineers (ASME). The award was presented during the 8th International Conference on Energy Sustainability, held June 30-July 2 in Boston. Reddy is SRP Professor of Energy and Environment in ASU's Design School, within the Herberger Institute for Design and the Arts, and a professor in the School of Sustainable Engineering and the Built Environment, one of the Ira A. Fulton Schools of Engineering. He holds a courtesy appointment in the School for Engineering of Matter, Transport and Energy, and is also a senior sustainability scientist in the Julie Ann Wrigley Global Institute of Sustainability. The highest award of the Solar Energy Division, the Yellott Award honors the division's first chair, professor John Yellott, "recognizing outstanding service to the division and significant contributions to solar energy engineering through research, publication and education." Yellott, an internationally recognized scientist who worked on the Manhattan Project during World War II, was hired by ASU as a lecturer in 1963 in what was then the College of Architecture, and then became a visiting professor in 1973. He was granted emeritus status in 1979. According to ASME, Reddy was selected this year for "his dedicated and productive research career in solar thermal energy and energy efficiency in buildings, for his dedication to train(ing) students in energy sustainability, and for his extensive service and leadership to the ASME Solar Energy Division." The award is given every two years, and Reddy is the 12th recipient to date. Reddy is also a founding chair of ASME's Conference on Energy Sustainability.

Mesa Fires Up New Solar Array for Police Station
[Phoenix Business Journal, Sept. 17] Mesa, in conjunction with SRP, powered up its fifth leased solar facility in a year at Red Mountain Police Station, 4333 E. University Drive. SolarCity installed and will own and maintain the system as part of a 20 year agreement. It is expected to generate more than 272,400 kilowatt hours of energy annually for the station. Savings in utility costs over that time are estimated to achieve $206,000. Mesa continues to turn sunshine into savings with a new 169.2 kilowatt solar power generator on its Red Mountain Police Station. The parking lot sited solar panel array at 4333 E. University Drive will push more than 272kW hours each year into the police station, cutting Mesa's energy costs. The panels provide shade for police officers and their vehicles.

Conference & Exhibition 2014
Oct. 7-8 Atlantic City, NJ

Ute Tribe Energy Conference & Expo
Oct. 14-15 Denver, CO

Nat'l. Alternative Fuel Vehicle (AFV) Day Odyssey
Oct. 17

Solar Power International.
Oct. 20-23 Las Vegas, NV

GreenBuild International Conference & Expo
Oct. 22-24 New Orleans, LA

World Bio Markets USA
Oct. 27-29 San Diego, CA

VERGE SF 2014
Oct. 27-30 San Francisco, CA

Governor's Celebration of Innovation
Nov. 13 Phoenix, AZ

ACEEE Intelligent Efficiency Conference
Nov. 16-18 San Francisco, CA

Renewable Energy Markets Conference
Dec. 2-4 Sacramento, CA

Solar Power Generation USA
Feb. 4-5 San Diego, CA

GreenBiz Forum 2015
Feb. 17-19 Phoenix, AZ

2015 Sustainability Solution Festival
Feb. 17-22 Phoenix, AZ

Alternative Clean Transportation (ACT) Expo
May 4-7 Dallas, TX

Solar Power Generation Mexico
May 19-20, 2015
World Trade Center, Mexico

Green Building Lecture Series
Granite Reef Senior Center
Scottsdale, AZ

ASU Sustainability Series Events

Green Building Lecture Series
Scottsdale, AZ

UPCOMING INTERNATIONAL BUSINESS EVENTS

DATOS Focus on Arizona's Hispanic Market – Sept. 16 (PHX) & 18 (TUS) By Arizona Hispanic Chamber & Tucson Hispanic Chamber. RSVP

National Magazine Features ASU's Sustainability Efforts

[ASU News, Sept. 18] The August 2014 College Planning & Management magazine includes the feature article, "Greening the Desert," about some of Arizona State University's operational procedures and programs that it employs in pursuit of its climate-neutrality goals. ASU is working to achieve zero greenhouse gas emissions, not including transportation, by 2025, and including transportation by 2035. The article quotes John R. Riley, ASU associate vice president for business services and the university sustainability officer, who gives insight about ASU's sustainability efforts in regard to its growth. "Since 2005, we have reduced our greenhouse gas emissions by 15.3 percent, and our landfill waste by 24.3 percent, despite adding 29 percent more space and 33 percent more students," he said.

New Sawmill Brings Jobs to Williams, Helps Thin Forests

[Arizona Republic, Sept. 17] A new sawmill opened Monday west of Flagstaff after two years of planning. Newpac Fibre, LLC opened its sawmill in Williams at the location of a former sawmill site that closed in 1995. The company is bringing back an industry that died decades ago to a town that now mostly relies on tourism traffic. This resurgence is not only a sign of economic growth in the area, but also signifies a priority by the forest service and state to reduce fire damage by thinning forests. "We're excited to come in, bring this industry here, combine that with the social mandate to have these forests thinned," said Newspac CEO Chris Stephan. Wood sawed at the mill is used for paneling, flooring, doors and other building materials. What doesn't get used is chopped into mulch for landscaping and renewable energy fuels. Unlike some mills in northern Arizona, Newspac plans to employ mostly locals.

San Luis Gives Preliminary Approval for Energy Tower Rezoning

[Yuma Sun, Sept. 11] SAN LUIS, Ariz. – The San Luis City Council has given preliminary approval to a rezoning that would allow the firm Solar Wind Energy to build a tower more than 2,000 feet tall on the city's southeast side to collect and convert wind to electricity for sale. At its meeting this week, the council voted unanimously to approve the first reading of an ordinance rezoning nearly 640 acres of rural use for general industrial use to allow for the tower proposed by the Maryland firm. The council also directed city staff to draft an amendment to the city zoning code to establish noise level limits in industrial zones. John Starkey, the city's building safety director, said the noise limit had been proposed by a San Luis resident during hearings previously held by the city planning and zoning commission to hear public comments on the tower proposal. By 2018, Solar Wind Energy proposes to construct the tower on land located between avenues D and C and between County 24th and County 25th streets. Standing 2,250 feet in height, the tower would collect hot, dry air and use water to cool it, causing the air to fall through a shaft in a powerful downdraft that would drive turbines, generating electricity for sale by the company. The project originally envisioned the construction of two towers. But since the city doesn't have the needed water to supply two, the project has been scaled back to one, city officials said. The rezoning request is subject to a second reading and approval by the council at an as-yet undetermined date, and Solar Wind Energy must also secure the city's approval of various permits for the construction phase. "We will continue working with the city throughout the process," said Ronald Pickett, the Maryland firm's president. "The site plan that has been presented and discussed up to now is not really specific. It shows the tower as it is but doesn't give other details." Pickett said the firm hopes to have the final site plan ready for approval by the council in December. Meanwhile, Solar Wind Energy continues its efforts to line up financing, Pickett said.

ALTERNATIVE ENERGY & EFFICIENCY

Big Factories Go to Work on Biofuel

[New York Times, Sept. 19] EMMETSBURG, Iowa — Charlie Kollasch, a farmer supplying raw material to a huge new ethanol factory here, stood inside a big red shed on his property, showing off the V-shaped metal frame studded with prongs that he and his son had installed on top of a flatbed truck. The contraption — "our little Star Wars deal," he called it — is meant to grip tightly packed bales of corn cobs, husks and leaves, known as stover, on their journey from field to refinery, one of the many logistical tasks that has proved unexpectedly difficult in transforming agricultural waste into biofuel. "I hope it works," he said with a shrug, laughing. He could have been speaking of the industry as a whole. With three major commercial plants in some stage of opening, the business finally appears poised to take off. For example, the factory that Mr. Kollasch is helping to supply, a joint venture between the ethanol producer Poet and Royal DSM, the Dutch life and materials sciences company, held its grand opening here this month, drawing the king of the Netherlands to this town of roughly 3,800 set among rolling fields of head-high corn. But the industry still faces deep uncertainties. The federal government is considering pulling back from an important mandate, one that producers say is necessary if their large-scale plants are to succeed.

Cross Cultural Education by OWIT – Sept. 18 in Phoenix OWIT-Phoenix presents an educational seminar on cross cultural issues. RSVP

Exportech by US Commercial Service - Starts Sept. 19 in Mesa Contact Kristian.Richardson@trade.gov of USCS for more information.

Annual China Forum – Sept. 21 in Tempe By Confucius Institute, discussing strategies for developing synergies of conducting business between the U.S. and China. Speakers include leaders from Medtronic and Najafi Companies. RSVP

5th Annual Celebration of Trade – Oct. 1 in Tucson By US Commercial Service and Arizona DEC. Celebrate trade! RSVP

City of Phoenix Office in Mexico City – Oct. 7-8 in Mexico City Let trade and investment continue to grow. Contact Hank.Marshall@phoenix.gov.

Mariposa Port Entry Grand Opening – Oct. 15 in Nogales The new port of entry is here, making border crossing faster.

GPEC Annual Dinner – Oct. 17 in Phoenix By GPEC, when they throw this party, everyone who is anyone is there! RSVP

Global Chamber® 'Global Careers' - Oct. 21 in Glendale Student week event with 7 CEO's and hundreds of business leaders and students discussing business opportunities and growth. RSVP

MBDA Global Business Conference - Oct. 23-24 in Phoenix Network. Connect. Do Business. Succeed! RSVP

PCFR Int'l. State of the State - Oct. 27 in Phoenix One global event you can't miss every year. The lunch that keeps on giving, with a flavor of foreign policy, economic development and business growth. RSVP

Global Chamber® Launch - Nov. 5 in Phoenix Oh my, it's coming! Watch for the new website and a whole new way of getting connected with global business. More info.

EIA: US Geothermal Power Generation To Quadruple by 2040

[U.S. Energy Information Administration, Sept. 15] Geothermal energy has been a small, but consistent, source of electricity in the United States since 1971, providing 0.4% of total U.S. generation in 2013. California is the site of most U.S. geothermal capacity, but since 2001 new geothermal capacity additions have increasingly been located in other western states as most of the low-cost resources in California have already been developed. Unlike conventional thermal power plants, which burn fuel (typically fossil fuels) to heat water and generate steam to drive turbines, electricity is generated from conventional geothermal resources by tapping underground reservoirs of hot water. The heat from the steam or hot water is then used to generate electricity in much the same way as in other steam turbine power generators. This process requires plants to be able to access high-temperature fluids from deep, naturally permeable rock formations. These resources are most commonly found in the western United States.

Electric Vehicles Are Cleaner, But Still Not a Magic Bullet

[New York Times, Sept. 16] The Union of Concerned Scientists said on Tuesday that in 60 percent of the United States, electric vehicles are now responsible for fewer heat-trapping global warming emissions per mile than even the most efficient hybrids. In an April 2012 report titled "State of Charge: Electric Vehicles' Global Warming Emissions and Fuel Cost Savings Across the United States," the group had concluded that electric vehicles were cleaner than hybrids in only 45 percent of the country. That was because in many areas, the majority of the electricity used to charge the vehicles was generated at coal-fired power plants. Proponents of electric vehicles were not pleased. Automakers that had invested heavily in electric vehicle development were even less pleased. Just before the release of the 2012 report, the chief executive of Nissan and Renault, Carlos Ghosn, declared that electrics were cleaner than any car that burned gasoline, even in areas where all electric power is generated from coal. The data said otherwise. The scientists group concluded that in an area where electric power was generated using a high proportion of coal — as it is in much of the nation's midsection — an electric vehicle was no cleaner than a high-m.p.g. gasoline-engine subcompact. In the two years since that report, some utilities have added clean renewable sources of electricity to their mix and, more important, electric vehicles have become more efficient.

Fed Publishes Resources to Assist Solar Growth

[Energy Manager Today, Sept. 22] The White House announced several new resources – from websites to reports – to promote solar energy as follows: The Department of Energy is launching Solar Powering America to provide access to a wide range of federal resources to drive solar deployment. The website will also be used to highlight and track private sector commitments to install distributed solar. DOE released an updated Guide to Federal Financing for Energy Efficiency and Clean Energy Deployment. This guide will highlight financing programs located in various federal agencies, such as the Treasury, HUD, and USDA, which can be used for energy efficiency and clean energy projects. The Solar Foundation, A SunShot Initiative partner, released a report exploring how US schools are using solar to lower their energy costs.

New Report Shows America's Schools Saving Money by Going Solar

[Solar Energy Industries Assoc. website, Sept. 18] WASHINGTON, DC – In a report card deserving of the honor roll, a comprehensive, first-of-its-kind new study released today says America's K-12 schools have shown explosive growth in their use of solar energy over the last decade, soaring from 303 kilowatts (kW) of installed capacity to 457,000 kW, while reducing carbon emissions by 442,799 metric tons annually – the equivalent of saving 50 million gallons of gasoline a year or taking nearly 100,000 cars off U.S. highways. *Brighter Future: A Study on Solar in U.S. Schools* was prepared by The Solar Foundation (TSF) – with data and analysis support from the Solar Energy Industries Association (SEIA) – and funded through a grant provided by the U.S. Department of Energy's SunShot program. The Solar Foundation's report is the first nationwide assessment of how solar energy helps to power schools in communities across America. Most importantly, the report shows that thousands of schools are already cutting their utility bills by choosing solar, using the savings to pay for teacher salaries and textbooks. What's more, the report estimates that more than 70,000 additional schools would benefit by doing the same.

Consumers To Invest $625B in Renewable Energy Resources

[Fierce Energy, Sept. 17] Electric utilities are facing disruptive new technology trends that are altering their traditional relationship with residential customers, according to Navigant Research, and it's called distributed energy resources (DER), which are now more affordable and have stimulated growing interest and adoption by residential customers who see an opportunity for greater control of their energy consumption. Innovations in renewable distributed power generation, along with attractive new financing mechanisms, are providing residential customers

Global Chamber® Tucson Launch - Nov. 6 in Tucson
Also coming to Tucson, introduced by Mayor Rothschild. More info.

Governors Celebration of Innovation - Nov. 13 in Phoenix
By AZ Tech Council, the event for tech innovators in Arizona. More info.

with new options to manage their energy use and generate their own power. In fact, Navigant predicts that homeowners and other residential customers will invest more than $625 billion, cumulatively, in DER from 2014 through 2023, with the biggest disruptor being solar PV panels, which enable customers to generate some of their own electricity and sell unneeded power back to the utility.

Sun and Wind Alter Global Landscape, Leaving Utilities Behind

[New York Times, Sept. 13] HELIGOLAND, Germany — Of all the developed nations, few have pushed harder than Germany to find a solution to global warming. And towering symbols of that drive are appearing in the middle of the North Sea. They are wind turbines, standing as far as 60 miles from the mainland, stretching as high as 60-story buildings and costing up to $30 million apiece. On some of these giant machines, a single blade roughly equals the wingspan of the largest airliner in the sky, the Airbus A380. By year's end, scores of new turbines will be sending low-emission electricity to German cities hundreds of miles to the south. It will be another milestone in Germany's costly attempt to remake its electricity system, an ambitious project that has already produced striking results: Germans will soon be getting 30 percent of their power from renewable energy sources. Many smaller countries are beating that, but Germany is by far the largest industrial power to reach that level in the modern era. It is more than twice the percentage in the United States. Germany's relentless push into renewable energy has implications far beyond its shores. By creating huge demand for wind turbines and especially for solar panels, it has helped lure big Chinese manufacturers into the market, and that combination is driving down costs faster than almost anyone thought possible just a few years ago.

ENERGY/GENERAL

As Moscow's Landfills Near Limits, Recyclers Do Whatever It Takes

[New York Times, Sept. 18] MOSCOW — It was five years ago, Andrey Protasov recalls, that he and his wife, Elena, decided to begin doing a very un-Russian sort of thing: recycling their garbage. "We started thinking, why should we waste?" said Mr. Protasov. "We can save forests and other natural resources. It's a message that goes to your soul." The two accountants began with paper, which they stashed on the balcony of their Soviet-era high-rise apartment in a middle-class suburb of Moscow. But they quickly ran into problems. Not surprisingly, since the city of Moscow has no recycling program (despite an impending garbage crisis), they had trouble finding a recycling center that would take their paper. Internet searches were fruitless, and the commercial collection companies they found in the phone book were unwilling to accept small amounts of paper. Four years went by, and the paper piled up waist-deep on the balcony, which led to a new problem — grandfather would wait until they left home and then throw the paper in the trash surreptitiously. "He was always trying to get rid of all the garbage from our balcony," Mr. Protasov said, grinning. "He thought we were quite crazy guys." Surprising though it may be, the Protasovs, who eventually took a car-full of old paper to a private company an hour's drive away and sold it for virtually nothing, are not alone. In Russia, where most household trash goes straight to landfills, a small but growing cadre of people not only want to recycle, but are willing to go to great lengths to do so. They entertain modest dreams that they will someday inspire the government to institute wide-ranging regulations for garbage separation.

Preliminary Study Says West Can Withstand 7,000 MW of Coal Retirements

[Power Engineering, Sept. 22] A preliminary technical report released Sept. 19 by the Western Electricity Coordinating Council (WECC) suggests that the regional grid could withstand an additional 7,000 MW of coal power retirements beyond what is already planned. The 46-page technical report is part of the research that WECC is doing in connection with the EPA proposal to slash carbon dioxide (CO_2) emissions from existing power plants. "The recently proposed Environmental Protection Agency (EPA) Clean Power Plan has the potential to significantly impact the Western electric generation and transmission industry," WECC said in the introduction. WECC notes that one of the "building blocks" of the EPA proposal is to improve the heat rate of coal units by 6%. This assumption could have a big impact on Wyoming and Montana with their huge concentration of coal-fired power plants, WECC said. WECC stressed that the technical report is meant to serve as a research tool for Western states and provinces served by WECC. It is not meant to promote any specific policy approach. "This is a highly complex rule for an industry that is as dynamic and challenging as ever," WECC said. "Western states are already taking actions to reduce emissions, prior to Clean Power Plan implementation - the effectiveness of these plans in meeting the proposed EPA goals appears to vary from state to state. WECC's preliminary analysis showed that states planning to retire carbon intensive generation, implement energy efficiency, and build out robust levels of renewable resources could make strides toward achieving the EPA goals in the next 10-years. However, some states have emission rates short of the goals in that same timeframe, despite their planned activities," WECC said.

Pump Prices in U.S. Fall to Lowest Since February

[Bloomberg, Sept. 22] Gasoline prices at U.S. pumps may decline further from a seven-month low as falling crude costs and less stringent fuel regulations boost supply, according to Lundberg Survey Inc. The average price of regular gasoline slid 8.9 cents in the two weeks ended Sept. 19 to $3.3741 a gallon, the lowest since Feb. 7, according to the survey, which is based on information obtained at about 2,500 filling stations. Prices are 14.66 cents lower than a year ago and may drop by a few more cents, the Camarillo, California-based researcher said. U.S. crude prices have dropped by more than $10 a barrel since reaching this year's peak in June. Refineries ran at 93 percent of capacity in the week ended Sept. 12, the most for this time of year since 2006, taking advantage of rising oil production from shale formations. Ethanol futures have dropped by half since early April, encouraging blenders to mix more of the biofuel into gasoline.

INDUSTRIES AND TECHNOLOGIES

Gas Turbine Technologies for the Transition

[Power Engineering, The need for faster, more efficient and more flexible generation means America's reliance on natural gas, like it or not, will continue to grow. Low-priced natural gas created by a boom in production, stricter environmental standards for coal-fired power plants, and the integration of increasing amounts of renewable power have led power producers to shutter substantial amounts of coal-fired and nuclear generation. About 60 GW of coal-fired generation in the U.S. will be retired by 2020 and about 35 GW of nuclear capacity will be retired by 2025, according to recent projections by Black & Veatch, a global engineering and construction firm serving the power generation sector. Much of that capacity will be replaced with power produced by low-cost, cleaner-burning natural gas. In 2035, power fueled with natural gas is expected to surpass coal-fired power as the dominant source of power generation in the U.S., according to the Energy Information Administration (EIA), the statistical arm of the U.S. Department of Energy (DOE). After 2020, power plants fueled with natural gas will account for 70 percent of all new generation capacity, according to EIA. By 2040, natural gas will account for 35 percent of U.S. generation, EIA estimates. Coal will account for 32 percent of the generation pie. During the same period, renewable power capacity will grow 69 percent, which means gas-fired plants must be fast and flexible to accommodate the growing amount of intermittent generation. With gas prices expected to hover between $4 and $6 per million Btu for several years, demand for fast, flexible and efficient gas turbines that can accommodate the variability of renewable power is expected to soar. The global market for gas turbines is expected to grow from $18 billion in 2013 to more than $26 billion in 2020, according to projections by Frost & Sullivan, a research and consulting firm. Orders for new gas turbines are expected to rise from more than 58,000 MW in 2013 to more than 81,500 MW in 2020, the company said.

Snap Together' Solar System Increases Output from Roofs

[Energy Manager Today, Sept. 17] SolarCity unveiled a flat roof solar mounting system – ZS Peak – that it says is twice as fast to install and can generate significantly more solar electricity from commercial rooftops. Like SolarCity's Zep residential solar systems, ZS Peak provides a snap-together system to simplify and accelerate installation. SolarCity estimates that ZS Peak can increase generation capacity on flat roof buildings by 20-50 percent per building and do so without requiring any penetrations. The system's dense, east-west layout structure will allow SolarCity to fit up to 20 percent more solar panels on standard roofs and up to 50 percent more panels on lightweight roofs, such as those commonly found on warehouses. The increase in panels per roof is particularly valuable in the commercial market, as conventional flat-roof solar systems typically power less than half of a commercial building's load.

US and Japan To Drive PV Microinverter and Power Optimiser Growth

[PVTech.org, Sept. 18] Both PV microinverter and power optimiser demand are expected to continue to grow rapidly, according to the latest market research report from IHS Technology. Collectively known as module-level power electronics (MLPE), this segment of the market is expected to see a compound annual growth rate of 27%, reaching revenue of US$1.1 billion in 2018 and equivalent to 6.6GW in 2018. The MLPE market was said to be worth US$329 million in 2013.

US To Train Veterans To Install Solar Panels

[Associated Press, Sept. 18] WASHINGTON – The White House says the U.S. will train at least 50,000 veterans to become solar panel installers in the next six years. The program is among a host of initiatives the White House says will cut carbon dioxide emissions by more than 300 million tons through 2030, plus save billions on energy bills. The veterans program will launch this fall at

one or more military bases. The Agriculture Department will also spend nearly $70 million on solar and renewable energy projects, while the Energy Department is proposing stricter efficiency standards for certain air conditioners. The proposals are modest compared with what Obama has asked Congress to do on clean energy. They come as Obama seeks to strengthen U.S. resolve on climate change before next week's United Nations climate summit.

LEGISLATION AND REGULATION

EPA Extends Comment Period for Power Plant Rule

[Phoenix Business Journal, Sept. 16] The Environmental Protection Agency extended the comment period until Dec. 1 for its proposed rule requiring existing power plants to reduce carbon emissions. The 45-day extension will give the public more time to submit comments on this controversial rule, which critics contend will raise the cost of electricity and force coal-fired power plants to shut down. Supporters, however, contend the rule is necessary to combat climate change, since power plants are the largest source of carbon pollution in the U.S. Plus, they argue it will spur innovation and the use of cleaner sources of energy. The proposed regulation requires electric utilities to reduce carbon emissions by 30 percent from 2005 levels by 2030. It gives states flexibility on how to meet this requirement.

Schultz – Bingaman Report Recommends Expansion of SEP

[NASEO News, Sept. 15]On September 11, 2014, at the NASEO Annual Meeting in Savannah, Georgia, former U.S. Senator Jeff Bingaman announced the release of The State Clean Energy Cookbook: A Dozen Recipes for State Action on Energy Efficiency and Renewable Energy. The development of the bipartisan report was led by former Senator Jeff Bingaman and former Secretary of State and Treasury George Schultz under a joint study by Stanford University's Steyer-Taylor Center for Energy Policy and Finance and the Hoover Institution's Shultz-Stephenson Task Force on Energy Policy. The report highlights several great state energy best practices examples. Of particular note, the bipartisan group recommended only one federal action — expanded support for the U.S. State Energy Program.

New AC Standards Would Rank as Biggest Energy Saver in DOE History

[Energy Manager Today, Sept. 22] The US Department of Energy (DOE) has proposed new efficiency standards that would slash commercial rooftop air conditioner energy use by about 30 percent. The proposed standards would achieve the largest national energy savings of any standard ever issued by DOE. Rooftop air conditioners, commonly used in low-rise buildings such as schools, restaurants, big-box stores and small office buildings, cool about half of the total commercial floor space in the United States. Air conditioners account for about 10 percent of a typical commercial building's electricity costs, according to the American Council for an Energy-Efficient Economy. DOE estimates that the new standards would net a typical building owner between $3,500 and $16,500 over the life of a single commercial rooftop air conditioner. Overall savings will often be higher since most buildings have multiple units. Over the lifetime of units sold over 30 years, the proposed standards would save businesses between $16 and $50 billion and reduce electricity consumption by about 1.3 trillion kilowatt-hours, DOE projects.

Sting of Guzzler Tax, Frozen for Decades, Fades

[New York Times, Sept. 12] Even the fastest, most powerful new cars can be classified as fuel-sipping stewards of the environment — by the federal government's measure, anyway. Despite increasingly challenging revisions to fuel-economy standards, each demanding significant improvements in efficiency, fewer cars are incurring the gas-guzzler penalties stipulated by the Environmental Protection Agency. To a great extent, this is a result of technology developments made by the automakers, which include hybrid powertrains, smaller turbocharged engines, advanced transmissions and lightweight structures. But the trend — in 2012, the Internal Revenue Service collected $73.5 million through the gas-guzzler tax, down from $201.7 million in 2006 — calls into question the relevance of a law that was written in the late 1970s and last updated in 1990. The shrinking pool of vehicles subject to the tax is a sign of the steady flow of improvements, delivered each model year, in which higher fuel-economy numbers have often arrived with little or no sacrifice in horsepower or acceleration. Yet unlike other policies intended to spur the acceptance of greener, higher-mileage vehicles, the gas-guzzler tax has not evolved to keep pace with the market. Even as the Corporate Average Fuel Economy program, new federal greenhouse-gas standards and California's zero-emission-vehicle incentives prod automakers to continue their progress in raising efficiency, the guzzler tax is losing its bite as a means of promoting efficiency and as a source of revenue. The tax is levied on passenger cars with a combined city-highway fuel-economy rating of less than 22.5 miles per gallon, as measured by the standardized testing procedure of the National Highway Traffic Safety Administration. The rules are complex. For instance, the mileage numbers displayed on a car's window sticker are derived

using a different methodology that produces values 20 to 25 percent lower, so a car that displays an E.P.A. combined rating of 21 m.p.g. may not incur a guzzler penalty. And the regulations embody any number of allowances and loopholes. The penalties start at $1,000 and increase to $7,700 for cars that achieve less than 12.5 m.p.g., although there isn't a vehicle that is taxed at the steepest rate. Automakers pay the fee to the I.R.S., but the cost is passed on to buyers in the price of the car.

U.S. Green Groups Urge Methane Rules for Oil and Gas Industry

[Yahoo News, Sept. 18] WASHINGTON - The U.S. Environmental Protection Agency must act to rein in methane pollution from the oil and gas industry, environmental groups said on Thursday, warning that failure to set federal standards would undermine other Obama administration efforts to address climate change. The EPA is expected to lay out a plan within months to reduce methane emissions from oil and gas drilling as a part of President Barack Obama's broad climate action plan. A coalition of major green groups, including the Environmental Defense Fund and the Natural Resources Defense Council, urged Obama in a letter to "swiftly" issue binding emission regulations on oil and gas production, the largest industrial source of methane. Voluntary measures would not be enough to contain methane pollution, said Mark Brownstein, chief counsel of the U.S. climate and energy program at the EDF. "It's very clear that direct regulation of both new and existing sources is going to be critical if we are truly going to address this problem," Brownstein said on a conference call with reporters.

White House Proposes New Energy Efficiency Rule in Climate Push

[Reuters, Sept. 18] WASHINGTON – The e U.S. Department of Energy unveiled its latest energy efficiency rule on Thursday, a standard for commercial air conditioning units that the White House believes could slash energy use in commercial and industrial buildings. The proposal would cut climate-changing carbon emissions by more than 60 million tonnes, and could save more energy than any other efficiency standard issued by the Energy Department to date, the White House said in a release. The new standard was part of a package of actions announced on Friday that the White House said would curb nearly 300 million tonnes of carbon emissions by 2030 and save consumers more than $10 billion on energy bills.

WESTERN POWER

At Salton Sea, Geothermal Hopes Persist

[The Desert Sun, Sept. 13] With the fate of the Salton Sea hanging in the balance, all eyes are turned toward the lake's southern shore. That's where 11 geothermal power plants churn out electricity 24 hours a day, seven days a week, with the potential for massively expanded energy development. Local leaders see new geothermal development as critical to funding the restoration of the Salton Sea, which has been receding as agricultural runoff declines. Restoration is likely to cost between $3 billion and $9 billion, and the Imperial Irrigation District has estimated that geothermal development could generate $2 billion in royalty payments over the next 30 years. But while the Salton Sea is home to one of the world's most potent geothermal reservoirs, developing that energy is expensive — at least compared to other renewable energy sources, including wind and solar. The result is that geothermal development by the lake has come to a standstill. Only one new plant has been built since 2000, and plans for additional facilities have either stalled or been scrapped. Geothermal advocates had hoped that Senate Bill 1139 — a high-profile bill aimed at boosting development across California — would jumpstart geothermal activity by the sea. But while the state Senate approved it by a 21-11 margin in June, the bill failed to garner enough support to make it through the Assembly.

Governor Brown Seeks More Electric Cars in California

[Reuters, Sept. 22] California Governor Jerry Brown signed several legislations on Sunday to encourage the electric car market in the state, which accounts for 40 percent of all electric vehicles sold in the United States. The legislations are meant to make electric cars affordable in low-income communities and to achieve a target of having 1.5 million zero emission vehicles in California by 2025. (http://gov.ca.gov/news.php?id=18720) The new plans encourage the usage of clean-air vehicles by granting free access or access at reduced rates to high-occupancy toll lanes. Commercial and real estate owners will be able to approve installation of electric vehicle charging stations, as long as it meets requirements. California surpassed sales of 100,000 plug-in electric vehicles earlier this month.

L.A. Launches Streamlined Permitting System for Solar Panels Online

[LA Times, Sept. 19] The city of Los Angeles has launched an online permitting system for solar panels, seeking to streamline the process and reduce costs for homeowners. Previously, those installing the systems had to go to a Department of Building and Safety office, with plans in hand,

to apply for a permit, then wait days for approval, said department spokesman Luke Zamperini. But now, it's possible to receive permits for solar photovoltaic systems directly from the department's website, the mayor's office said in a news release this week. Zamperini said the time for approval has been slashed to minutes. At the moment, the online permit system can process 75% of all solar photovoltaic permits for single-family homes and duplexes, according to the mayor's office. By the end of the year, the system is expected to handle 95% of permits. Since launching the system as a pilot program in July, the department has issued more than 250 permits. Building and Safety inspectors have also received additional training which allows them, instead of the Fire Department, to verify certain requirements --a streamlining that the mayor's office says will reduce time and costs for homeowners. "The work done by the Department of Building and Safety, together with ongoing customer service improvements for solar customers underway at the Los Angeles Department of Water and Power, will cut costs and help create local jobs in the city's growing solar installation industry," Garcetti said in a news release.

Nevada Transit Agency Looking to Roll Out 400 NGVs

The Regional Transportation Commission of Southern Nevada (RTC) has taken delivery of new compressed natural gas (CNG) paratransit vehicles that represent the first step in the agency's shift to alternative fuels. RTC signed a contract with RO Bus Sales for the purchase and conversion of 80 initial units, as well as for four optional extensions to bring another 320 natural gas vehicles into the fleet through 2017

San Diego Utility Leveling the Playing Field for Customers

[Fierce Energy, Sept. 18] San Diego Gas & Electric (SDG&E) filed a rate reform proposal earlier this year to implement the goals of Assembly Bill 327, the Ratepayer Equity Act, which allows the California Public Utilities Commission (CPUC) to make changes to the current outdated rate structure, including lifting restrictions on rates for lower-use customers. Now, these customers are getting the chance to weigh in with the CPUC at hearings scheduled over the next several weeks.

ARIZONA STATE INCENTIVES/POLICIES

ARIZONA COMMERCE AUTHORITY (ACA)

INCENTIVES

Arizona has lowered taxes, streamlined regulations, and established a suite of incentives to support corporate growth and expansion. The Arizona Competitiveness Package, groundbreaking legislation adopted in 2011, makes it easier for existing Arizona companies to prosper and establishes Arizona as one of the most desirable places for expanding companies to do business. Give your company a competitive edge by utilizing Arizona's incentives.

- Job Training
- Quality Jobs
- Qualified Facility
- Computer Data Center Program
- Research & Development
- Foreign Trade Zone
- Military Reuse Zone
- Angel Investment
- Renewable Energy Tax Incentive
- Healthy Forest
- Sales Tax Exemption for Machinery and Equipment
- Lease Excise
- Additional Depreciation
- Work Opportunity
- Commercial/Industrial Solar
- SBIR/STTR
- Private Activity Bonds
- QECB's

- **(ACA) PROGRAMS**
- **DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY (DSIRE)**

  - Arizona Incentives/Policies
  - Federal Incentives/Policies
  - Solar Policy News
    DSIRE provides summaries of current solar policy developments and an archive of past solar policy developments. Current solar news appears below the news archive, which is searchable by several criteria.

GRANTS

The following solicitations are now available:
(Click on title to view solicitation)

- Nanomanufacturing – Current Closing Date for Applications: Sep. 15, 2014 Full Proposal Window: Sep.1, 2014 – Sep. 15, 2014 Full Proposal Window: Feb. 01, 2015 – Feb. 17, 2015
- Civil Infrastructure Systems – Sep. 15, 2014 Submission Window Date(s) (due by 5 p.m. proposer's local time): Full Proposal Window: Sep. 01, 2014 – Sep. 15, 2014 Full Proposal Window: Feb. 01, 2015 – Feb. 17, 2015
- Frontier Observatory for Research in Geothermal Energy (FORGE) – Close Date: Oct. 1, 2014
- Vehicle Technologies Alternative Fuel Vehicle Deployment Initiatives – Concept Paper Submission Deadline: Aug. 1, 2014 Submission Deadline: Oct. 1, 2014
- Deployment of Clean Energy & Energy Efficiency on Indian Lands #DE-FOA-0001021 – Full Application Submission Deadline: October 2, 2014.
- Energy for Sustainability – Current Closing Date for Applications: Nov. 5, 2014 Full Proposal Window: Oct. 01, 2014 – Nov. 5, 2014
- Small Business Innovation Research Program - Response due October 2, 2014
- SunShot "Race to the Roof" Initiative - Registration due October 31, 2014
- Energy, Power, and Adaptive Systems - Close Date: Nov. 3, 2014
- National Robotics Initiative - Response due Nov. 14, 2014
- NSF/DOE Partnership on Advanced Frontiers in Renewable Hydrogen Fuel Production Via Solar Water Splitting Technologies 2014-2016 - Close Date: Dec. 11, 2014
- Energy for Sustainability – Current Closing Date for Applications: Nov. 5, 2014
- Nuclear Energy University Programs - Fellowship and Scholarship – Response due November 30, 2015
- Advanced Fossil Energy Projects - Solicitation Number: DE-SOL-0006303 Expiration Date: Nov. 30, 2016
- Repowering Assistance Program - Ongoing
- Rural Business Enterprise Grants - Ongoing
- Rural Business Opportunity Grants - Ongoing
- Sustainable Agriculture Research and Education Grants - Ongoing
- Renewable Energy RFP's - Solicitations for Renewable Energy Generation, Renewable Energy Certificates, and Green Power – Various Deadlines
- U.S. Dept. of Agriculture - Rural Development Grant Assistance
- Green Refinance Plus - Ongoing